



# IBM DS8880 Function Authorizations for IBM DS8000 Copy Services Manager on HMC for machine types 2836, 2837, 2838, and 2839

## Table of contents

<a href="#">1 Overview</a>	<a href="#">7 Publications</a>
<a href="#">1 Key prerequisites</a>	<a href="#">8 Technical information</a>
<a href="#">1 Planned availability date</a>	<a href="#">11 Terms and conditions</a>
<a href="#">1 Description</a>	<a href="#">11 Prices</a>
<a href="#">5 Product number</a>	

## At a glance

New licensed function indicators for IBM<sup>®</sup> DS8000<sup>®</sup> Copy Services Manager on HMC (CSM on HMC) are available for IBM DS8880 high-performance flagship Model LF8 of machine types 2836, 2837, 2838, and 2839.

## Overview

IBM DS8000 series Function Authorizations are for billing purposes only and establish the extent of IBM authorization for use of the licensed functions on an IBM DS8880 system, machine types 2831, 2832, 2833, and 2834.

The following licensed functions are being introduced:

- **2836 Model LF8:** IBM DS8000 Copy Services Manager on HMC (CSM on HMC) license (feature numbers 84xx)
- **2837 Model LF8:** IBM DS8000 Copy Services Manager on HMC (CSM on HMC) license (feature numbers 84xx)
- **2838 Model LF8:** IBM DS8000 Copy Services Manager on HMC (CSM on HMC) license (feature numbers 84xx)
- **2839 Model LF8:** IBM DS8000 Copy Services Manager on HMC (CSM on HMC) license (feature numbers 84xx)

## Key prerequisites

All announced features and functions are supported on the IBM DS8000 series and require DS8000 LMC 8.8.10.xx.xx (bundle version 88.10.xxx.xx), or later.

## Planned availability date

June 10, 2016

## Description

The following licensed functions are available on IBM DS8880 machine types 2831, 2832, 2833, and 2834:

Licensed function	Description
Base Function (BF)	IBM DS8000 Base function
Copy Services (CS)	IBM DS8000 Copy Services
z-synergy Services (zsS)	IBM DS8000 z-synergy Services
Copy Services Manager on HMC (CSM on HMC)	IBM DS8000 Copy Services Manager on HMC

All DS8880 licensed functions are enabled, authorized, managed, activated, and enforced based upon the physical capacity contained in a 283x system. In the context of licensed functions, these terms are defined as follows:

- "283x system" refers to the 283x base unit and all physically attached 283x expansion units:
  - A 283x base unit refers to the Models 980, 981, and 982
  - A 283x expansion unit refers to the Models 98B, 98E, and 98F

*Enablement* refers to the selection of a 283x licensed function indicator feature number to technically activate the associated licensed function.

*Authorization* refers to the acquisition of a DS8000 series Function Authorization (IBM 283x) feature number to establish the extent of IBM authorization (license size in terms of physical capacity) for use of an associated licensed function. This is also referred to as the *authorization level*.

*Management* refers to client use of the Disk Storage Feature Activation (DSFA) application to select the license scope, assign the license value, and deactivate a licensed function.

*Activation* refers to the client retrieval and installation of the feature activation code into the 283x system. The feature activation code is made available by IBM and obtained using the DSFA application.

*Enforcement* refers to logic and other technology within the Licensed Machine Code of the 283x to maintain compliance with established IBM authorization levels.

**Note:** For Copy Services Manager on HMC entitlement, an order of IBM Copy Services Manager 6.x.x (5725-Z54) is required before you can configure Copy Services Manager on HMC on MT 283x on the required capacity. Ensure the number of years for software support and maintenance is purchased is tied to the warranty of the MT 283x.

## Enablement

Each licensed function is enabled for a 283x system through the selection of the appropriate licensed function indicator feature number on the 283x base unit.

Licensed function	Licensed function indicator
Base Function (BF)	283x feature numbers 81xx
Copy Services (CS)	283x feature numbers 82xx
z-synergy Services (zsS)	283x feature numbers 83xx
Copy Services Manager on HMC (CSM on HMC)	283x feature numbers 84xx

Each licensed function indicator feature selected on a 283x base unit enables that function at the system level. These features are not selected on any attached 283x expansion units.

## Authorization

The extent of IBM authorization for the use of a licensed function on a 283x system is established by acquiring 283x function authorization models and feature numbers for the 283x base unit.

Licensed function	Function authorization
Base Function (BF)	283x Model LF8 feature number 8151-8160

Licensed function	Function authorization
Copy Services (CS)	283x Model LF8 feature number 8250-8260
z-synergy Services (zsS)	283x Model LF8 feature number 8350-8360
Copy Services Manager on HMC (CSM on HMC)	283x Model LF8 feature number 8450-8460

Each function authorization acquired for a 283x base unit establishes the authorization level for the 283x system. For example, a system with models 980, 981, and 982, and three models 98B, 98E, and 98F expansion units requires only one Base Function (BF) (283x Model LF8 feature numbers 8xxx) function authorization. The authorization levels established by acquiring one or more function authorizations for models 980, 981, and 982 must also cover the physical capacity of the attached model 98B, 98E, and 98F expansion units.

The authorization level provided by each feature number is stated within the feature number description. The unit represents physical capacity, where a terabyte (TB) equals one trillion bytes. A 283x system's total authorization level for a given licensed function is the sum of the units (TB) associated with all the acquired feature numbers.

The function authorization are based on the capacity range and tier as shown below:

Tier	Min. (TB)	Max. (TB)	Tier TB granularity	Feature Quantity (max.)	Range delta (TB)	Feature number
1	1	100	10	10	100	8x51
2	101	250	15	10	150	8x52
3	251	500	25	10	250	8x53
4	501	1250	75	10	750	8x54
5	1251	3000	175	10	1750	8x55
6	3001	6000	300	10	3000	8x56
7	6001	10000*	500	8	4000	8x60

**Note:** \* The maximum (TB) for Copy Services Manager on HMC is 100,000.

## Management

Licensed functions are managed using the DSFA application on the [IBM Data storage feature activation](#) website.

To access DSFA, you will be required to enter information about your 283x machine. You can find this information on the Storage Unit General Properties page in the IBM DS8000 Storage Manager application.

Management activities include:

- Selection of a license scope
- Assignment of a license value
- Deactivation of a licensed function

**License scope:** Licensed functions are activated and enforced within a defined license scope. License scope refers to the type of storage, and therefore the type of servers, that the function can be used with.

- Fixed Block (FB): This function can be used only with data from Fibre Channel-attached servers.
- Count Key Data (CKD): The function can be used only with data from FICON-attached servers.
- Both FB and CKD (ALL): The function can be used with data from all attached servers.

Select licensed functions have multiple license scope options, while other functions have only a single license scope.

<b>Licensed function</b>	<b>License scope options</b>
Base Function (BF)	FB, ALL
Copy Services (CS)	FB, ALL
z-synergy Services (zsS)	CKD
Copy Services Manager on HMC (CSM on HMC)	FB, ALL

If a licensed function has multiple license scope options, you will be required to select a license scope during the initial retrieval of the feature activation code. This activity is performed using the DSFA application.

The license scope is not selected while ordering function authorization feature numbers. The feature numbers only establish the extent of IBM authorization in terms of physical capacity, regardless of the storage type.

You can also change the license scope using the DSFA application after a licensed function has been activated. A new feature activation code will be generated and when you install it into the machine, the function will be activated and enforced using the newly selected license scope. Only an increase in the license scope (changing FB or CKD to ALL) is a concurrent activity. A lateral change (changing FB to CKD or changing CKD to FB) or a reduction of the license scope (changing ALL to FB or CKD) is a disruptive activity and requires a machine IML.

**License value:** Licensed functions are activated and enforced based upon an assigned license value.

License value refers to extent of IBM authorization and is referenced as physical capacity (TB).

On Models 980, 981, and 982, license value assignment is an optional activity that can be performed using the DSFA application.

On these models, the feature activation codes will always be generated using the total license value for each licensed function, unless a license value of zero (0.0 TB) has been assigned.

**Deactivation:** Assigning a license value of zero (0.0 TB) provides the ability to deactivate (disable) a licensed function. A new feature activation code will be generated and when installed into the machine, the function will be deactivated during the next IML of the machine.

A deactivated licensed function can be reactivated by changing the license value to a non-zero value. A new feature activation code will be generated and when installed into the machine, the function will be activated. Reactivation is a concurrent activity.

When a licensed function is deactivated using the DSFA application, the installed function authorization feature numbers remain on the machine record. The function authorization feature numbers do not need to be reacquired to reactivate the licensed function at a future date.

### **Activation**

Licensed functions are activated by the installation of feature activation codes into the 283x system. The feature activation codes are made available by IBM and are obtained using the DSFA application.

### **Enforcement**

The 283x Licensed Machine Code contains logic and other technology to maintain compliance with established authorization levels. The physical capacity for each storage type can be logically configured up to the given authorization level. If there are multiple licensed functions with the same license scope, the extent of IBM authorization is defined by the licensed function with the lowest license value.

Subcapacity licensing requires capacity monitoring and remote connection.

## Accessibility by people with disabilities

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A US Section 508 Voluntary Product Accessibility Template (VPAT) containing details on accessibility compliance can be found on the [IBM Accessibility](#) website.

## Section 508 of the US Rehabilitation Act

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The IBM System Storage<sup>(R)</sup> DS8000 series Function Authorizations are capable, as of December 4, 2015, when used in accordance with IBM's associated documentation, of satisfying the applicable requirements of Section 508 of the Rehabilitation Act, provided that any assistive technology used with the product properly interoperates with it. A US Section 508 Voluntary Product Accessibility Template (VPAT) can be found on the [IBM Accessibility](#) website.

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## Reference information

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For additional information about DS8880 2831, refer to Hardware Announcement [115-139](#), dated October 20, 2015.

For additional information about DS8880 2832, refer to Hardware Announcement [115-142](#), dated October 20, 2015.

For additional information about DS8880 2833, refer to Hardware Announcement [115-140](#), dated October 20, 2015.

For additional information about DS8880 2834, refer to Hardware Announcement [115-141](#), dated October 20, 2015.

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## Product number

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Description	Machine type	Model	Feature
DS8000 series Function Authorization	2836	LF8	
IBM DS8000 Copy Services Manager on HMC (CSM o HMC) license:			
- CSM on HMC - Inactive			8450
- CSM on HMC - Up to 100 TB capacity			8451
- CSM on HMC - 100.1 TB to 250 TB capacity			8452
- CSM on HMC - 250.1 TB to 500 TB capacity			8453
- CSM on HMC - 500.1 TB to 1250 TB capacity			8454
- CSM on HMC - 1250.1 TB to 3000 TB capacity			8455
- CSM on HMC - 3000.1 TB to 6000 TB capacity			8456
- CSM on HMC - 6000.1 TB to 100,000 TB			8460

<b>Description</b>	<b>Machine type</b>	<b>Model</b>	<b>Feature</b>
DS8000 series Function Authorization	2837	LF8	
IBM DS8000 Copy Services Manager on HMC (CSM o HMC) license:			
- CSM on HMC - Inactive			8450
- CSM on HMC - Up to 100 TB capacity			8451
- CSM on HMC - 100.1 TB to 250 TB capacity			8452
- CSM on HMC - 250.1 TB to 500 TB capacity			8453
- CSM on HMC - 500.1 TB to 1250 TB capacity			8454
- CSM on HMC - 1250.1 TB to 3000 TB capacity			8455
- CSM on HMC - 3000.1 TB to 6000 TB capacity			8456
- CSM on HMC - 6000.1 TB to 100,000 TB			8460

<b>Description</b>	<b>Machine type</b>	<b>Model</b>	<b>Feature</b>
DS8000 series Function Authorization	2838	LF8	
IBM DS8000 Copy Services Manager on HMC (CSM o HMC) license:			
- CSM on HMC - Inactive			8450
- CSM on HMC - Up to 100 TB capacity			8451
- CSM on HMC - 100.1 TB to 250 TB capacity			8452
- CSM on HMC - 250.1 TB to 500 TB capacity			8453
- CSM on HMC - 500.1 TB to 1250 TB capacity			8454
- CSM on HMC - 1250.1 TB to 3000 TB capacity			8455
- CSM on HMC - 3000.1 TB to 6000 TB capacity			8456
- CSM on HMC - 6000.1 TB to 100,000 TB			8460

<b>Description</b>	<b>Machine type</b>	<b>Model</b>	<b>Feature</b>
DS8000 series Function Authorization	2839	LF8	

Description	Machine type	Model	Feature
IBM DS8000 Copy Services Manager on HMC (CSM on HMC) license:			
- CSM on HMC - Inactive			8450
- CSM on HMC - Up to 100 TB capacity			8451
- CSM on HMC - 100.1 TB to 250 TB capacity			8452
- CSM on HMC - 250.1 TB to 500 TB capacity			8453
- CSM on HMC - 500.1 TB to 1250 TB capacity			8454
- CSM on HMC - 1250.1 TB to 3000 TB capacity			8455
- CSM on HMC - 3000.1 TB to 6000 TB capacity			8456
- CSM on HMC - 6000.1 TB to 100,000 TB			8460

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## Business Partner information

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If you are a Direct Reseller - System Reseller acquiring products from IBM, you may link directly to Business Partner information for this announcement. A PartnerWorld<sup>(R)</sup> ID and password are required (use IBM ID).

[BP Attachment for Announcement Letter 116-055](#)

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## Publications

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No publications are shipped with the DS8000 series Function Authorizations.

To access the IBM Publications Center Portal, go to the [IBM Publications Center](#) website.

The Publications Center is a worldwide central repository for IBM product publications and marketing material with a catalog of 70,000 items. Extensive search facilities are provided. A large number of publications are available online in various file formats, which can currently be downloaded.

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## Services

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### Global Technology Services

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IBM services include business consulting, outsourcing, hosting services, applications, and other technology management.

These services help you learn about, plan, install, manage, or optimize your IT infrastructure to be an on-demand business. They can help you integrate your high-speed networks, storage systems, application servers, wireless protocols, and an array of platforms, middleware, and communications software for IBM and many non-IBM offerings. IBM is your one-stop shop for IT support needs.

For details on available services, contact your IBM representative or go to the <http://www.ibm.com/services/> website.

For details on available IBM Business Continuity and Recovery Services, contact your IBM representative or go to the [Resiliency Services](#) website.

Details on education offerings related to specific products can be found on the [IBM authorized training](#) website.

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## Technical information

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### Specified operating environment

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#### Hardware requirements

Each DS8000 series Function Authorization (IBM 283x) establishes the extent of IBM authorization for one or more licensed functions acquired for an IBM DS8880 (IBM 283x). Each 283x function authorization is applicable only for the specific 283x machine (by serial number) for which it was acquired and is not transferable to another serial numbered 283x machine.

Each 283x function authorization requires a corequisite licensed function indicator feature number on the 283x machine for which it was acquired:

Licensed function	IBM 283x Indicator Feature number	IBM 283x Function Authorization Models and feature numbers
Base Function (BF)	81xx	Model LF8 feature number 8151-8160
Copy Services (CS)	82xx	Model LF8 feature number 8250-8260
z-synergy Services (zsS)	83xx	Model LF8 feature number 8350-8360
Copy Services Manager on HMC (CSM on HMC)	84xx	283x Model LF8 feature number 8450-8460

#### Base Function (BF)

A minimum of 10 TB unit BF license is required on every 283x base unit (Model 980 and 981). The extent of IBM authorization acquired through the 283x Model LF8 feature numbers must cover the physical capacity for each acquired drive set of the 283x system, where system is defined as the base unit and all physically attached expansion units.

Feature	Description	Corequisite
8151	BF - Up to 100 TB capacity	Model LF8 feature #8151
8152	BF - 100.1 TB to 250 TB capacity	Model LF8 feature #8152
8153	BF - 250.1 TB to 500 TB capacity	Model LF8 feature #8153
8154	BF - 500.1 TB to 1250 TB capacity	Model LF8 feature #8154
8155	BF - 1250.1 TB to 3000 TB capacity	Model LF8 feature #8155
8156	BF - 3000.1 TB to 6000 TB capacity	Model LF8 feature #8156
8160	BF - 6000.1 TB to 10000 TB	Model LF8 feature #8160

The physical capacity for BF licenses (Model LF8 feature numbers 8151-8160) are required. This is required for the base function and for a valid system configuration.

The number of TB unit base function license feature activation code can be retrieved and activated by using the DSFA application. The capacity of the storage system



for BF licenses are mainly a pricing mechanism, so there will not be any feature activation code to be retrieved and activated by using the DSFA application.

If the BF license has not been acquired and activated on the machine, disk drives installed within the 283x system cannot be logically configured for use. Upon activation of the BF, disk drives can be logically configured up to the extent of IBM authorization.

As additional disk drives are installed, the extent of IBM authorization must be increased by acquiring additional 283x Model LF8 feature numbers. Otherwise, the additional disk drives cannot be logically configured for use.

### **Limitations**

- Conversions between machine types is not supported.
- The intermixing of models and features between machine types is not supported. For example, intermixing of machine type 2836 Model LF8 and machine type 2838 Model LF8 is not supported.
- The amount of physical capacity within a 283x system that can be logically configured for use will be enforced by the 283x Licensed Machine Code to maintain compliance with the extent of IBM authorization established for licensed functions activated on the machine. The 283x Licensed Machine Code will not allow the logical configuration of physical capacity beyond the extent of IBM authorization.
- A lateral change or reduction in the license scope is a disruptive activity and requires a machine IML (Model 980, 981, or 982).
  - A lateral change is defined as changing the license scope from FB to CKD or from CKD to FB.
  - A reduction is defined as changing the license scope from ALL to FB or from ALL to CKD.
  - The deactivation of an activated licensed function occurs at the next machine IML (Model 980, 981, or 982).

### **Planning information**

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#### **Customer responsibilities**

#### **Determining the required extent of IBM authorization**

You are responsible for determining the extent of IBM authorization required for each licensed function. Your disk marketing specialist can help you with this activity. Below are some general guidelines:

- The required authorization level depends upon the license scope:
  - If the license scope is FB, the authorization level must be equal to or greater than the total amount of physical capacity within the system that will be logically configured as FB.
  - If the license scope is CKD, the authorization level must be equal to or greater than the total amount of physical capacity within the system that will be logically configured as CKD.
  - If the license scope is ALL, the authorization level must be equal to or greater than the total system physical capacity.
- The required authorization level stated above could be applicable to the base function license only.
- Refer to *IBM DS8880 Introduction and Planning Guide* (GC27-8525) for physical capacity calculation guidelines.

#### **Licensed function management and activation**

Licensed function management and activation activities responsibilities:

- Management refers to use of the DSFA application to select the license scope and assign the license value.

- Activation refers to the retrieval and installation of the feature activation code into the 283x system. The feature activation code is made available by IBM and obtained using the DSFA application.

These activities are your responsibility during the initial activation of a licensed function and when you increase the extent of IBM authorization.

### **DSFA application**

To access DSFA, you will be required to enter information about your 283x machine. You can find this information on the Storage Unit General Properties page in the IBM DS8000 Storage Manager application.

The DSFA application is available on the [IBM Data storage feature activation](#) website.

You are responsible for downloading or obtaining from IBM, and installing designated Machine Code (microcode, basic input/output system code (called BIOS), utility programs, device drivers, and diagnostics delivered with an IBM machine) and other software updates in a timely manner from an IBM Internet website or from other electronic media, and following the instructions that IBM provides. You may request IBM to install Machine Code changes; however, you may be charged for that service.

### **Cable orders**

No cables required.

### **Direct customer support**

Direct customer support for the DS8000 Function Authorization is provided by IBM Operational Support Services - Support Line. This fee service can enhance your productivity by providing voice and electronic access into the IBM support organization. IBM Operational Support Services - Support Line will help answer questions pertaining to product and feature usage (how to), configuration and product compatibility for eligible products. For a list of the products supported through Support Line, see the [IBM Supported Products List](#).

For more information on services, call 800-IBM-4YOU (426-4968).

### **Security, auditability, and control**

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The customer is responsible for evaluation, selection, and implementation of security features, administrative procedures, and appropriate controls in application systems and communications facilities.

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## **IBM Electronic Services**

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IBM has transformed its delivery of hardware and software support services to help you achieve higher system availability. Electronic Services is a web-enabled solution that offers an exclusive, no-additional-charge enhancement to the service and support available for IBM servers. These services are designed to provide the opportunity for greater system availability with faster problem resolution and preemptive monitoring. Electronic Services comprises two separate, but complementary, elements: Electronic Services news page and Electronic Services Agent.

The Electronic Services news page is a single Internet entry point that replaces the multiple entry points traditionally used to access IBM Internet services and support. The news page enables you to gain easier access to IBM resources for assistance in resolving technical problems.

The Electronic Service Agent™ is no-additional-charge software that resides on your server. It monitors events and transmits system inventory information to IBM

on a periodic, client-defined timetable. The Electronic Service Agent automatically reports hardware problems to IBM. Early knowledge about potential problems enables IBM to deliver proactive service that may result in higher system availability and performance. In addition, information collected through the Service Agent is made available to IBM service support representatives when they help answer your questions or diagnose problems. Installation and use of IBM Electronic Service Agent for problem reporting enables IBM to provide better support and service for your IBM server.

To learn how Electronic Services can work for you, go to the [IBM Electronic Support](#) website.

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## Terms and conditions

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**MES discount applicable:** Equal to the volume commitment discount

**Field installable feature:** Yes

### Warranty period

Warranty for a DS8000 series licensed function is entitled as a feature of the 283x machine for which the licensed function is authorized, under the terms and conditions associated with that machine.

**Customer setup:** Customers are responsible for installation according to the instructions IBM provides with the machine.

**Licensed machine code:** IBM Machine Code is licensed for use by a customer on the IBM machine for which it was provided by IBM under the terms and conditions of the IBM License Agreement for Machine Code, to enable the machine to function in accordance with its specifications, and only for the capacity authorized by IBM and for which the customer has acquired.

You can obtain the agreement at the [IBM Machine Warranties](#) website. or by contacting your IBM representative.

DS8000 series Function Authorizations (IBM 283x) are acquired for 283x base unit models and establish the extent of IBM authorization for the licensed function at the 283x system level. A 283x system is defined as the 283x base unit model (Model 961) and any physically attached 283x expansion unit model (Model 96E).

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## Prices

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Description	Machine type	Model	Feature number
DS8000 series Function Authorization	2836	LF8	
Copy Services Manager on HMC (CSM on HMC) license:			
- CSM on HMC - Inactive			8450
- CSM UP TO 100 TB CAP			8451
- CSM 100.1 TB TO 250 TB CAP			8452
- CSM 250.1 TB TO 500 TB CAP			8453
- CSM 500.1 TB TO 1250 TB CA			8454
- CSM 1250.1 TB TO 3000 TB C			8455

<b>Description</b>	<b>Machine type</b>	<b>Model</b>	<b>Feature number</b>
- CSM 3000.1 TB TO 6000 TB C			8456
- CSM 6000.1 TB TO 100000 TB			8460
<b>Description</b>	<b>Machine type</b>	<b>Model</b>	<b>Feature number</b>
DS8000 series Function Authorization	2837	LF8	
Copy Services Manager on HMC (CSM on HMC) license:			
- CSM on HMC - Inactive			8450
- CSM UP TO 100 TB CAP			8451
- CSM 100.1 TB TO 250 TB CAP			8452
- CSM 250.1 TB TO 500 TB CAP			8453
- CSM 500.1 TB TO 1250 TB CA			8454
- CSM 1250.1 TB TO 3000 TB C			8455
- CSM 3000.1 TB TO 6000 TB C			8456
- CSM 6000.1 TB TO 100000 TB			8460
<b>Description</b>	<b>Machine type</b>	<b>Model</b>	<b>Feature number</b>
DS8000 series Function Authorization	2838	LF8	
Copy Services Manager on HMC (CSM on HMC) license:			
- CSM on HMC - Inactive			8450
- CSM UP TO 100 TB CAP			8451
- CSM 100.1 TB TO 250 TB CAP			8452
- CSM 250.1 TB TO 500 TB CAP			8453
- CSM 500.1 TB TO 1250 TB CA			8454
- CSM 1250.1 TB TO 3000 TB C			8455
- CSM 3000.1 TB TO 6000 TB C			8456
- CSM 6000.1 TB TO 100000 TB			8460
<b>Description</b>	<b>Machine type</b>	<b>Model</b>	<b>Feature number</b>
DS8000 series Function Authorization	2839	LF8	
Copy Services Manager on HMC (CSM on HMC) license:			
- CSM on HMC - Inactive			8450

Description	Machine type	Model	Feature number
- CSM UP TO 100 TB CAP			8451
- CSM 100.1 TB TO 250 TB CAP			8452
- CSM 250.1 TB TO 500 TB CAP			8453
- CSM 500.1 TB TO 1250 TB CA			8454
- CSM 1250.1 TB TO 3000 TB C			8455
- CSM 3000.1 TB TO 6000 TB C			8456
- CSM 6000.1 TB TO 100000 TB			8460

Description	Feature number	Install type	Feature conversion	Feature exchange	Feature remove	CSU
Copy Services Manager on HMC (CSM on HMC) license:						
- CSM on HMC - Inactive	8450	Both	No	No	No	Yes
- CSM UP TO 100 TB CAP	8451	Both	No	No	No	Yes
- CSM 100.1 TB TO 250 TB CAP	8452	Both	No	No	No	Yes
- CSM 250.1 TB TO 500 TB CAP	8453	Both	No	No	No	Yes
- CSM 500.1 TB TO 1250 TB CA	8454	Both	No	No	No	Yes
- CSM 1250.1 TB TO 3000 TB C	8455	Both	No	No	No	Yes
- CSM 3000.1 TB TO 6000 TB C	8456	Both	No	No	No	Yes
- CSM 6000.1 TB TO 100000 TB	8460	Both	No	No	No	Yes

CSU = Customer setup

## **Pricing terms**

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Prices in the following PDF prices link are suggested list prices on day of announcement for the U.S. only. They are provided for your information only. Dealer prices may vary, and prices may also vary by country. IBM list price does not include tax or shipping and is subject to change without notice.

[ENUS-116-055-LIST\\_PRICES\\_2016\\_05\\_31.PDF](#)

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